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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/635,096

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Hiroaki Sudo

JEL 31232

5375

7590

07/22/2004

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EXAMINER

MOORE JR, MICHAEL J

ART UNIT

PAPER NUMBER

2666

6

DATE MAILED: 07/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/635,096

Applicant(s)

SUDO, HIROAKI

Examiner

Michael J. Moore, Jr.

Art Unit

2666

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 May 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11 and 12 is/are allowed.
- 6) ☒ Claim(s) 13-15 and 18-20 is/are rejected.
- 7) ☒ Claim(s) 10, 16, 17 and 21-23 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claims **16, 17, 21, and 22** are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim should refer to other claims in the alternative only. See MPEP § 608.01(n). Accordingly, these claims have not been further treated on the merits.

2. Claims **10 and 23** are objected to because of the following informalities:

Regarding claim **10**, the phrase "delay detection of a received signal" should be "delay detection of the received signal" since the same signal as in part (i) is being referred to.

Regarding claim **23**, on line 5, it is believed that the term "step" should be "step (a)". Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims **13-15 and 18-20** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter that was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Regarding claims **13-15 and 18-20**, these claims are all single means claims and are subject to an undue breadth rejection under 35 USC 112, first paragraph. See MPEP § 2164.08(a).

Allowable Subject Matter

5. Claims **10-12 and 23** are allowable over the prior art of record.
6. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim **10**, the prior art of record teaches a demodulator that performs both coherent detection and delay detection on a received signal as well as a selector that selects either coherent detection or delay detection to be applied to a received signal. The prior art of record fails to teach selecting either coherent detection or delay detection according to either a packet communication speed/channel variation speed relationship, packet length, or channel variation speed itself.

Regarding claims **11 and 12**, the prior art of record teaches a modulator that performs a first and a second modulation of a signal to produce a first and a second modulated signal, respectively, where the first and second modulation correspond to coherent detection and delay detection, respectively. The prior art of record also teaches a selector that selects one of these modulated signals for transmission. The prior art of record fails to teach selecting between first and second modulated signals according to a packet communication speed/channel variation speed relationship, packet length, or channel variation speed itself.

Regarding claim **23**, the prior art of record teaches the performing of coherent detection and delay detection of a received signal. The prior art of record fails to teach selecting between first and second modulated signals according to a packet communication speed/channel variation speed relationship, packet length, or channel variation speed itself.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Yoshida (U.S. 6,452,964), Huszar et al. (U.S. 5,862,192), Gardner (U.S. 5,517,530), Kazecki et al. (U.S. 5,488,638), Shiino (U.S. 6,452,936), Natsumi (U.S. 5,745,005), Shou et al. (U.S. 6,038,250), Uesugi (U.S. 6,038,264), Ishizu (U.S. 5,914,985), Igarashi (U.S. 5,920,599), Blanchard et al. (U.S. 5,764,690), Sayeed (U.S. 6,594,320), Blanchard et al. (U.S. 5,862,132), Uesugi (U.S. 6,038,264), Sun (U.S. 6,295,311), Jones et al. (U.S. 6,654,340), Hamada et al. (U.S. 6,359,875), Ohkubo et al. (U.S. 5,959,965), Usui (U.S. 6,563,865), and Uesugi et al. (U.S. 6,259,721) are all references that contain material pertinent to this application.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Moore, Jr. whose telephone number is (703) 305-8703. The examiner can normally be reached on Monday-Friday (8:30am - 5:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema S. Rao can be reached at (703) 308-5463. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael J. Moore, Jr.
Examiner
Art Unit 2666


FRANK DUONG
PRIMARY EXAMINER

mjm MM